WE CLAIM:

1. A device comprising a substrate having a plurality of molecular moieties attached to a surface thereof and containing machine-readable information relating to the molecular moieties, wherein the information is contained in a discrete region of the substrate that is non-coplanar with respect to the substrate surface having the plurality of molecular moieties attached thereto.

2. The device of claim 1, wherein the machine-readable information comprises the identity of a customer.

3. The device of claim 1, wherein the machine-readable information comprises secured information.

4. The device of claim 1, wherein the machine-readable information comprises shipping and/or billing information.

5. The device of claim 1, wherein the machine-readable information comprises the identity of at least one of the molecular moieties attached to the device surface.

6. The device of claim 1, wherein the machine-readable information comprises information relating to a process by which the plurality of molecular moieties is attached to the substrate surface.

7. The device of claim 1, wherein the machine-readable information comprises information relating to experimental conditions associated with a use of the plurality of molecular moieties.

8. The device of claim 1, wherein the machine-readable information comprises information relating to the results of an experiment associated with a use of the plurality of molecular moieties.

9. The device of claim 1, wherein the machine-readable information is digital.

10. The device of claim 9, wherein the machine-readable information is represented by no less than about 1 kilobyte of data.

Sub a2 > 11. The device of claim 10, wherein the machine-readable information is represented by no less than about 1 megabyte of data.

12. The device of claim 11, wherein the machine-readable information is represented by about 1 to about 650 megabytes of data.

Sub a3 > 13. The device of claim 1, wherein the machine-readable information is optically readable.

14. The device of claim 13, wherein the machine-readable information is readable by a fluorescence reader.

15. The device of claim 13, wherein the machine-readable information is readable by a phosphoimager (i.e. can detect radioactive signal produced on sensitive film).

16. The device of claim 13, wherein the machine-readable information is readable by a compact disk reader.

17. The device of claim 13, wherein the machine-readable information is readable by a DVD reader.

18. The device of claim 13, wherein the machine-readable information is readable by a bar code reader.

19. The device of claim 18, wherein the bar code reader is a one-dimensional bar code reader.

20. The device of claim 18, wherein the bar code reader is a two-dimensional bar code reader.

21. The device of claim 1, wherein the machine-readable information is magnetically readable.

22. The device of claim 1, wherein the machine-readable information is electronically readable.

23. The device of claim 1, further comprising human readable information.

24. The device of claim 1, wherein the attached molecular moieties are protected.

25. The device of claim 24, further comprising a protective layer over the attached molecular moieties.

26. The device of claim 25, wherein the protective layer is removable.

27. The device of claim 25, wherein the protective layer allows only selected matter to be transmitted therethrough.

28. The device of claim 27, wherein the selected matter is electromagnetic radiation.

29. The device of claim 28, wherein the electromagnetic radiation has a wavelength that causes fluorescence near an attached molecular moiety.

30. The device of claim 1, wherein the plurality of attached molecular moieties comprises an array of biomolecules.

31. The device of claim 30, wherein the biomolecules are nucleotidic or peptidic.

32. The device of claim 30, wherein the biomolecules are oligomeric or polymeric.

33 The device of claim 30, wherein the array comprises at least about 5,000 molecular moieties per square centimeter of substrate surface.

34. The device of claim 33, wherein the array comprises at least about 50,000 molecular moieties per square centimeter of substrate surface.

35. The device of claim 34, wherein the array comprises at least about 200,000 molecular moieties per square centimeter of substrate surface.

36. The device of claim 35, wherein the array comprises at least about 1,000,000 molecular moieties per square centimeters of substrate surface.

37. The device of claim 1, wherein the substrate comprises a disk.

38. The device of claim 1, wherein the substrate comprises a tape.

39. The device of claim 1, wherein the substrate comprises a well plate.

40. The device of claim 1, wherein the substrate comprises a slide.

41. The device of claim 1, wherein the substrate comprises a plurality of surfaces arranged in a three-dimensional structure to which the molecular moieties are attached

Sub A4 > 42. The device of claim 1, wherein the substrate comprises a magnetic medium on which additional information may be written.

43. The device of claim 1, wherein the substrate comprises an optical medium on which additional information may be written.

44. The device of claim 1, wherein the surface having the molecular moieties attached thereto opposes a surface on which the information is located.

Sub A5 > 45. A device comprising a substrate having a surface adapted for attachment to a plurality of molecular moieties and containing machine-readable information relating to the molecular moieties.

46. The device of claim 45, wherein the machine-readable information is located on a surface of the substrate that is non-coplanar with respect to the surface adapted for attachment to a plurality of molecular moieties.

47. The device of claim 45, wherein attachment of molecular moieties to the surface is detectable through a signal having the same form as the machine-readable information.

48. The device of claim 47, wherein the signal form is fluorescence.

49. The device of claim 47, wherein the signal form is radioactivitiy.

50. The device of claim 46, wherein the non-coplanar surface opposes the surface adapted for attachment to a plurality of molecular moieties.

51. A machine for attaching molecular moieties to a device comprising a substrate having a surface adapted for attachment to a plurality of molecular moieties and containing machine-readable information relating to the molecular moieties, comprising:

a reader for reading the machine-readable information from the device; and

a means for attaching a plurality of biomolecules to the surface of the substrate based upon the machine readable information contained in the substrate.

52. The machine of claim 51, further comprising a means for verifying attachment of the biomolecules to the surface of the substrate.

53. The machine of claim 52, wherein the means for verifying attachment of the biomolecules is the reader for reading the machine-readable information.

54. The machine of claim 53, wherein the reader is adapted to detect fluorescence.

55. The machine of claim 53, wherein the reader is adapted to detect phosphorescence.

56. The machine of claim 51, wherein the attaching means comprises:

a reservoir adapted to contain a fluid;

an acoustic radiation generator for generating acoustic radiation; and

a focusing means for focusing the acoustic radiation at a focal point near the fluid surface in the reservoir.

57. The machine of claim 51, further comprising a means for altering the machine-readable information in the substrate.

58. A machine for performing an experiment using a device comprising a substrate having a plurality of molecular moieties attached to a surface thereof and containing machine-readable information relating to the molecular moieties, wherein the information is contained in a discrete region of the substrate that is non-coplanar with respect to the substrate surface having the plurality of molecular moieties attached thereto, comprising:

a reader for reading the machine-readable information contained in the device; and

a means for applying a substance that induces a response by the molecular moieties.

59. The machine of claim 58, further comprising a means for measuring the response.

60. The machine of claim 59, wherein the means for measuring the response is the reader for reading the machine-readable information.

61. The machine of claim 60, wherein the response is fluorescence.

62. The machine of claim 60, wherein the response is phosphorescence.

63. The machine of claim 58, further comprising a means for altering the machine-readable information in the substrate.

64. A method for attaching a plurality of molecular moieties to a surface of a substrate, comprising the steps of:

(a) providing the device of claim 45;

(b) using a machine to read the information from the substrate;

(c) attaching a plurality of molecular moieties to a surface of the substrate according to the information read by the machine.

65. The method of claim 64, wherein step (b) comprises the step of moving the substrate with respect to the machine.

66. The method of claim 65, wherein step (b) comprises determining the position and/or orientation of the substrate with respect to the machine.

67. The method of claim 65, wherein the moving step involves rotating the substrate.

68. The method of claim 65, wherein the moving step involves laterally moving the substrate.

69. The method of claim 65, wherein step (b) comprises the step of converting the information contained in the substrate into electric current.

70. The method of claim 65, wherein step (b) comprises the step of converting the information contained in the substrate into light waves.

71. The method of claim 65, wherein step (c) comprises the step of ejecting fluid droplets on the surface.

72. The method of claim 71, wherein the ejecting step is carried out acoustically.

73. The method of claim 72, wherein the ejecting step is carried out without using a nozzle.

74. The method of claim 64, wherein step (c) comprises attaching no more than one biomolecule at a time.

75. The method of claim 64, wherein step (c) comprises using a photolithographic technique.

76. The method of claim 64, wherein step (c) comprises covalently attaching the molecular moieties to the substrate surface.

77. The method of claim 64, wherein step (c) comprises noncovalently attaching the molecular moieties to the substrate surface.

78. The method of claim 64, wherein step (c) is performed by the machine that reads information from the substrate.

79. The method of claim 64, wherein step (c) comprises lowering the temperature of the substrate.

80. The method of claim 64, wherein steps (b) and (c) are performed substantially simultaneously.

81. The method of claim 64, wherein steps (b) and (c) are alternatingly repeated.

82. A method for performing an experiment using a plurality of molecular moieties attached to a surface of a substrate, comprising the steps of:

(a) providing a device of claim 1;

(b) using a machine to read the information from the substrate;

(c) applying a substance that induces a response from the molecular moieties based upon the information read by the machine.

83. The method of claim 82, wherein step (b) comprises the step of moving the substrate with respect to the machine.

84. The method of claim 83, wherein the moving step involves rotating the substrate.

85. The method of claim 83, wherein the moving step involves laterally moving the substrate.

86. The method of claim 82, wherein step (b) comprises the step of converting the information contained in the substrate into electric current.

87. The method of claim 82, wherein step (b) comprises the step of converting the information contained in the substrate into light waves.

88. The method of claim 82, wherein step (c) is performed by the machine that reads information from the substrate.

89. The method of claim 82, further comprising step (d) detecting the response.

90. The method of claim 89, further comprising step (e) writing information relating to the response on the substrate.